

J. YERKES.

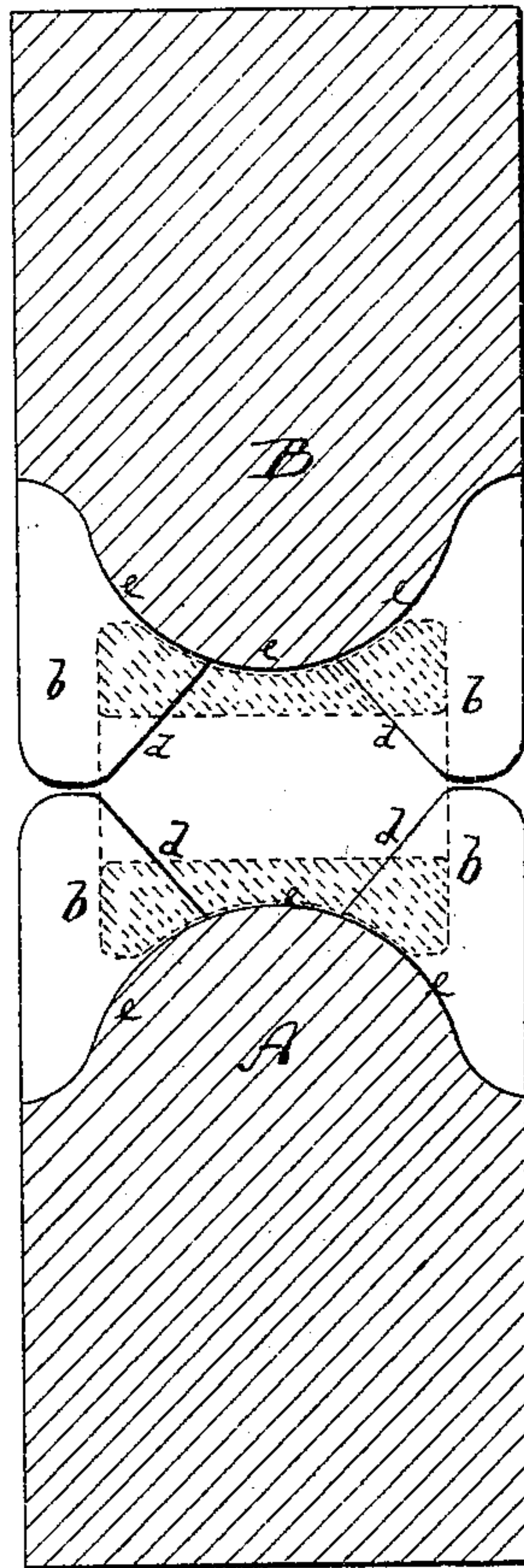
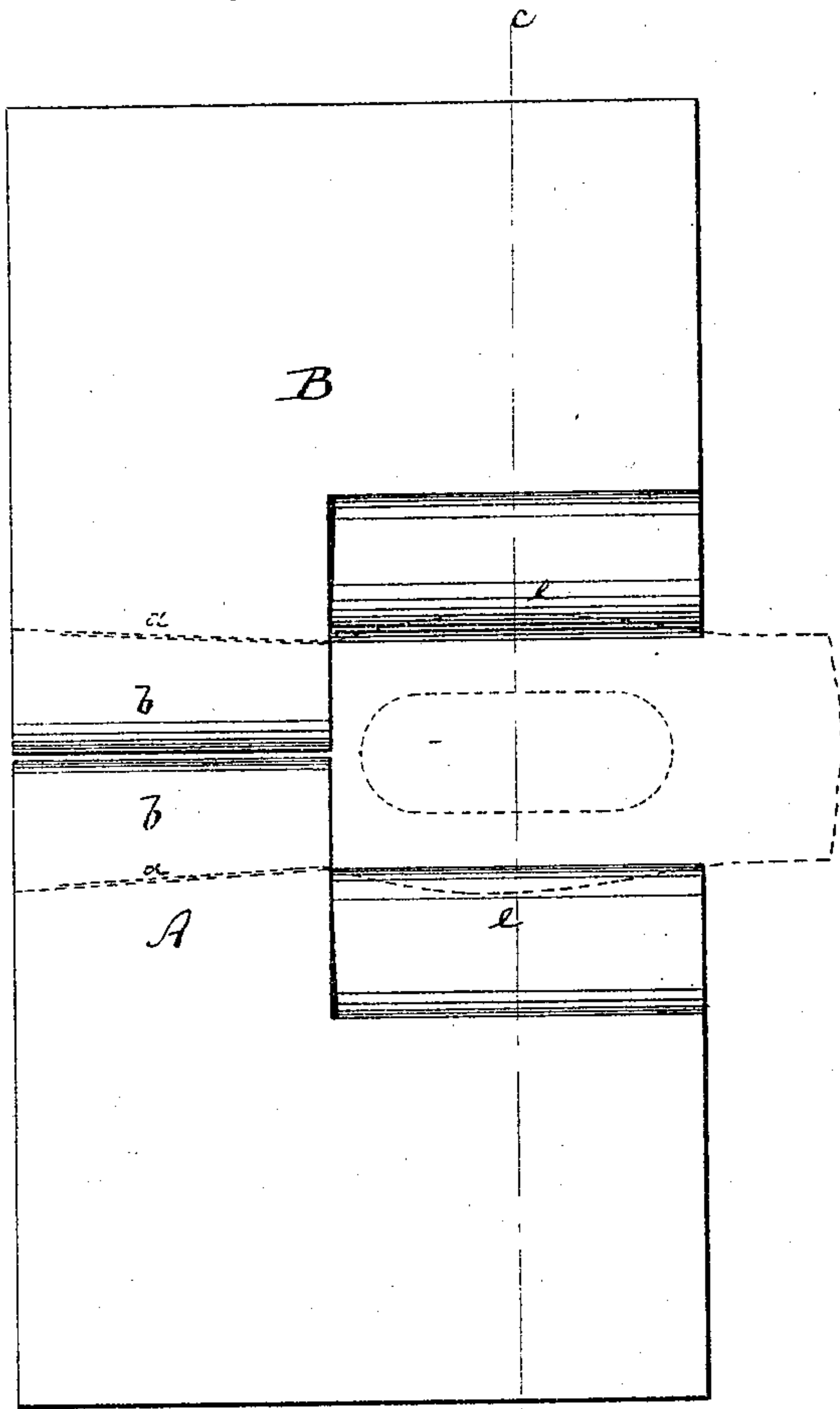
Dies for Shaping Hatchet Blanks.

No. 136,479.

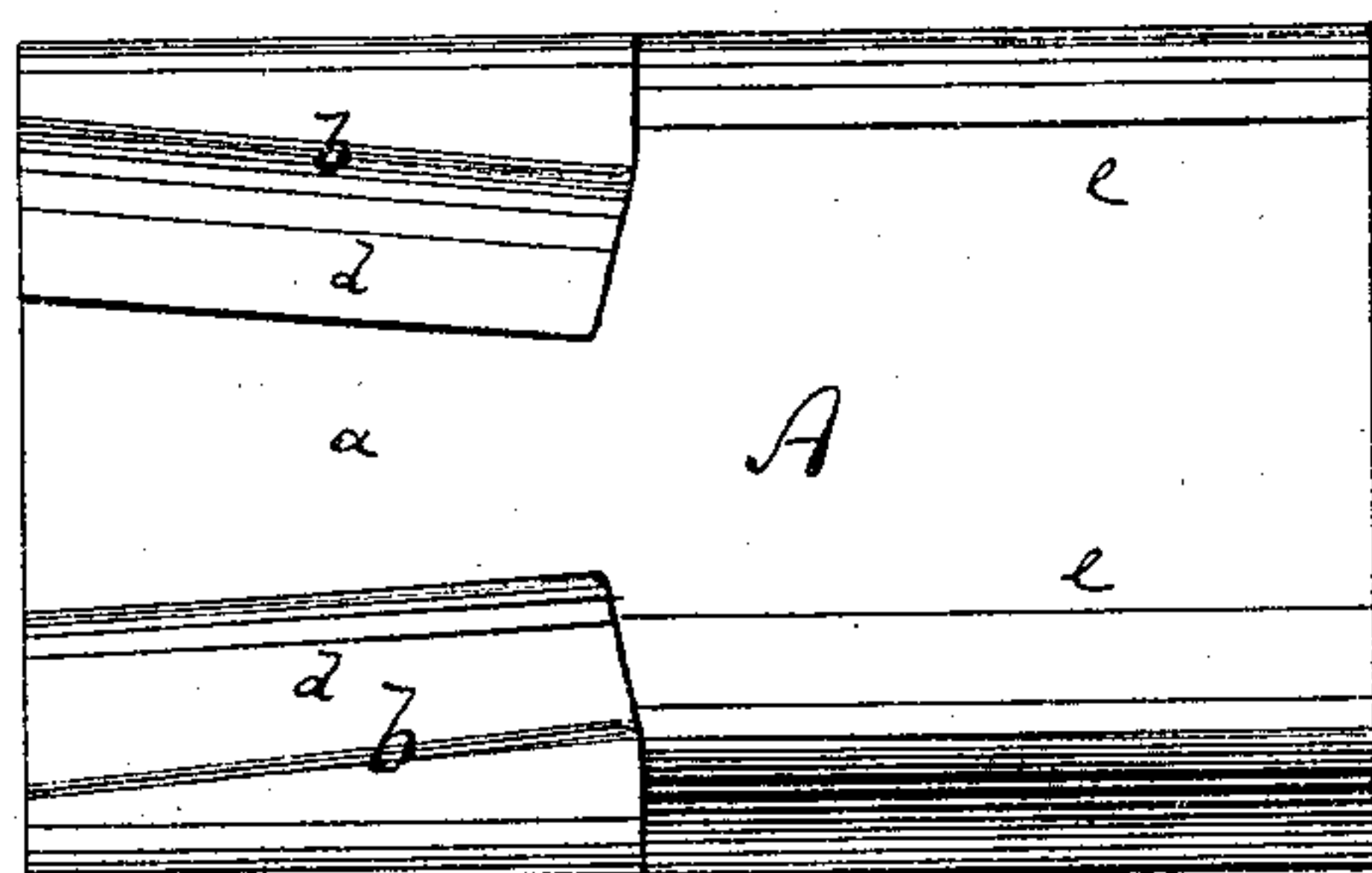
Patented March 4, 1873.

*Fig. 1.*

*Fig. 2.*



*Fig. 3.*



Witnesses:

A Bennekensof.  
Francis McQuigg.

Inventor:

Jonathan Yerkes.  
PER Minn & Co.

Attorneys.

# UNITED STATES PATENT OFFICE.

JONATHAN YERKES, OF FRANKFORD, (PHILADELPHIA,) PENNSYLVANIA,  
ASSIGNOR TO YERKES AND PLUMB, OF SAME PLACE.

## IMPROVEMENT IN DIES FOR SHAPING HATCHET-BLANKS.

Specification forming part of Letters Patent No. 136,479, dated March 4, 1873.

*To all whom it may concern:*

Be it known that I, JONATHAN YERKES, of Frankford, (Philadelphia,) in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Die for Shaping Hatchet-Blanks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a side view of my improved die for shaping hatchet-blanks, showing also the die B above the same. Fig. 2 is a vertical transverse section of the same taken on the plane of the line *c c*, Fig. 1. Fig. 3 is a plan or top view of the die.

Similar letters of reference indicate corresponding parts.

The invention consists in dies constructed as hereinafter described and claimed.

The chief objection to the use of dies in the manufacture of hatchets, thus far, has been the lateral enlargement produced on the blanks by their pressure, and the consequent trouble of sharpening them. This is avoided by the use of the lips which permit the application of full power, and at the same time aid in giving shape to the blanks. The more tedious and expensive ordinary process of forging these blanks under power-hammers is thus

substituted by the more effective and rapid action of the dies.

A in the drawing represents the die used by me in the manufacture of hatchets. It has, near the forward end where its surface *a* is concave or flat, projecting lips *b b* at the sides, the inner faces *d* of said lips being beveled, as is clearly shown in Fig. 2. Where the face of the die is convex or ridge shaped, as at *e*, the lips are not required, as the lateral enlargement of the blank over the rounded ridge is desirable. The die B is of the same form as an inverted die A.

The blank to be shaped is placed on the lower die, and the upper then brought down. The lips *b* embrace the blank before the surfaces *a* can reach and press it; therefore, the lips prevent all lateral enlargement, and serve, in fact, to bevel the corners of the blank, and start the octagonal shape of the hatchet-head.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The dies A B, each provided with a convex portion, *e e*, and lips *b*, constructed substantially as described.

JONATHAN YERKES.

Witnesses:

PETER CASTOR,  
WM. B. HILL.